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Notes:

1. Untranslatable words are replaced with asterisks (***).
2. Texts in the figures are not translated and shown as it is.

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CLAIM + DETAILED DESCRIPTION

[Claim(s)]

[Claim 1] If it has the main part of a globe with which many touch sensors were arranged on the surface topographical map, and the information output unit in which it has a display screen and the information, including a character, a picture, etc., relevant to every place on said topographical map was accumulated and the touch sensor on said topographical map is touched A globe equipped with the information output unit as which the position on said topographical map of the touch sensor which touched is sent to said information output unit as a specification position signal, and information, including various kinds of characters corresponding to this specification position signal, a picture, etc., is displayed on said display screen.

[Claim 2] It has the main part of a globe with which many touch sensors were arranged on the surface topographical map, the 1st display screen for character representations, and the 2nd display screen for image display. If it has the information output unit in which the information on the character relevant to every place on said topographical map and a picture was accumulated and the touch sensor on said topographical map is touched The position on said topographical map of the touch sensor which touched is sent to said information output unit as a specification position signal. A globe equipped with the information output unit as which various kinds of text, such as expository writing corresponding to this specification position signal, is displayed on said 1st display screen, and picture information, such as an expansion map corresponding to a specification position signal, is displayed on said 2nd display screen.

[Claim 3] Claim 1 and a display screen given in 2 are globes equipped with the information output unit constituted so that the information related with the position which touched may be displayed on a screen, when many touch sensors are arranged on a screen and the arbitrary positions on a display screen are touched.

[Claim 4] Claim 1 and an information output unit given in 2 are globes which are equipped with exchangeable information media and equipped with the information output unit in which it comes to accumulate the information displayed on these information media by said display screen.

[Detailed Description of the Invention]

[0001]

[Field of the Invention] When this invention touches the part of the more detailed arbitrary countries on

a topographical map, or an area about the suitable globe for study, it relates to the globe by which various kinds of information, including description of the country and area, a circumference map, etc., is outputted by a character, the picture, etc.

[0002]

[The conventional globe and its problem] Although the globe is used for study of geography or the world history from the former, information, including the name of a place which can be indicated on the topographical map currently drawn on the globe, is restricted. Therefore, there is a problem that other maps, encyclopedias, etc. must be referred to in acquiring the more detailed information about arbitrary countries, areas, etc.

[0003] Moreover, as for a globe, it is desirable to use that from which the display on a topographical map differs according to the purpose of use. For example, for learning a name, a position, etc. of each country, the thing of the topographical map classified by color based on geographical feature is suitable for learning the name and position of the thing of a topographical map, mountains, a lake, etc. which were classified by color according to the country, and, moreover, a hiragana, a Chinese character or a European-languages character, etc. also needs to choose the notation of a character appropriately according to a user's age.

[0004] Furthermore, by the conventional globe, when the amount of [, such as the border,] administrative district changes, there is also a problem that the spherical main part of a globe must be exchanged.

[0005]

[Objects of the Invention] Detailed information, including the name of a place on the topographical map currently drawn on the globe, its description, etc., can be acquired by easy operation, moreover the information is updated easily or there is a place made into the purpose of this invention in offering a globe exchangeable according to the purpose of use.

[0006]

[Elements of the Invention] [a globe equipped with the information output unit concerning Claim 1 of this invention] in order to attain the above-mentioned purpose If it has the main part of a globe with which many touch sensors were arranged on the surface topographical map, and the information output unit in which it has a display screen and the information, including a character, a picture, etc., relevant to every place on said topographical map was accumulated and the touch sensor on said topographical map is touched The position on said topographical map of the touch sensor which touched is sent to said information output unit as a specification position signal, and it is considered as the thing of composition of that information, including various kinds of characters corresponding to this specification position signal, a picture, etc., is displayed on said display screen.

[0007] [a globe equipped with the information output unit concerning Claim 2 of this invention] It has the main part of a globe with which many touch sensors were arranged on the surface topographical map, the 1st display screen for character representations, and the 2nd display screen for image display. If it has the information output unit in which the information on the character relevant to every place on said topographical map and a picture was accumulated and the touch sensor on said topographical map is touched The position on said topographical map of the touch sensor which touched is sent to said information output unit as a specification position signal. It is considered as the thing of composition of that various kinds of text, such as expository writing corresponding to this specification position signal, is displayed on said 1st display screen, and picture information, such as an expansion map corresponding

to a specification position signal, is displayed on said 2nd display screen.

[0008] If said display screen is equipped with many touch sensors on a screen and the arbitrary positions on a display screen are touched, the globe equipped with the information output unit concerning Claim 3 of this invention is constituted so that the information related with the position which touched may be displayed on a screen.

[0009] A globe equipped with the information output unit concerning Claim 4 of this invention is equipped with the information media which said information output unit can exchange, and has made them the thing of composition of coming to accumulate the information displayed on said display screen in these information media.

[0010]

[Working example] The work example of the globe concerning this invention is hereafter explained in detail based on the example shown in an accompanying drawing. In drawing 1, the main part 1 of a globe which makes a sphere is supported so that it can rotate free to the support frame 3 of a semicircle arc with the axis 2 of the upper and lower sides equivalent to an earth's axis, and the support frame is attached so that level rotation can be further carried out on a mount 4.

[0011] Although the touch sensor 5 of a large number set to ON by touching with a finger or a touch pen for exclusive use is arranged, for example into drawing 1 by the surface of the main part 1 of a globe as - mark shows, and these one touch sensor is arranged in it for every [each] country of the topographical map currently drawn on the main part of a globe in principle In the case of the country in which area is small and cannot arrange a touch sensor, one touch sensor is formed in the area which consists of two or more countries, in being the country where area is large, it divides domestic into two or more areas, and a touch sensor is arranged in an every place region.

[0012] In addition, the name of a country which has changed with an executive change in the above-mentioned topographical map, the classification by color for every country, and a description of the international border are taken as the thing of the classification by color according to the geographical feature of mountains without a possibility of it not carrying out, considering it as a blank map, or almost changing, the flat ground, a lake, the ocean, etc. Moreover, while raising the learning effect over geographical feature, it is suitable for the surface of the main part of a globe to have formed mountains' convex part and the crevice of the ocean and a lake so that it can be used also for a visually impaired person.

[0013] A deer is carried out and the signal wire 6 from said touch sensor is connected to the information output unit 7 through the axis 2, the support frame 3, and mount 4 of said upper and lower sides.

[0014] The information output unit 7 equips front right and left with the 1st display screen 8 and the 2nd display screen 9. Having a speaker 10 and a button for operation between these display screens, these manual operation buttons consist of vertical and horizontal direction buttons 11a and 11a and display size-change buttons 11b and 11b for expansion reduction.

[0015] Said 2nd display screen 9 shall be equipped with many touch sensors 12 for example, in the shape of a lattice on the screen, and the change of the screen display which the touch sensor of the part touched when the arbitrary parts of this 2nd display screen were touched is set to ON, and mentions later is performed. In addition, although the above-mentioned touch sensor 12 was made [which was arranged on the transparent sheet which the picture on a screen penetrates] transparent, in drawing 1, - mark showed the example of arrangement of the touch sensor 12.

[0016] Moreover, it has the connector 14 for connecting with peripheral equipment, such as the card slot

13 by which information media, such as a memory card, are inserted in the side (2 drawing 1 , left lateral) of the information output unit 7 removable, and a computer, an external communication apparatus.

[0017] The information output unit 7 relates the voice data for outputting from the image data, the character data, and said speaker 10 for making it display on said display screens 8 and 9 with each touch sensor 5 on the main part 1 of a globe, and has accumulated it in the internal memory beforehand. The information accumulated in this internal memory can be updated by inserting information media, such as a memory card with which new information is accumulated in said card slot 13, or can display now the information which is adapted for the age and the purpose of using a user.

[0018] Moreover, a computer and an external communication apparatus are connected to a connector 14, new information can be acquired from the exterior or the information accumulated in the internal memory through the connector can also be outputted now to an external computer etc.

[0019] An operation of the globe of this invention constituted as mentioned above is hereafter explained based on drawing 3 - 5. If the touch sensor 5 of the arbitrary position of the main part 1 of a globe is touched, a specification position signal will be sent to the information output unit 7 through a signal wire 6 from this touch sensor. While an information output unit makes picture information the expansion map of a country or an area which is in the specified position based on a specification position signal and displaying on the 2nd display screen 9 The sound which reads out the character which displays the description about that country and area on the 1st display screen 8 by Monju, and is further displayed on this 1st display screen is outputted from a speaker 10.

[0020] In addition, in moving the display rectangle of the map currently displayed on 2nd display 9 screen to north, south, east and west (four directions), it operates the direction button 11a, and in carrying out expansion reduction of the map, it operates the display size-change button 11b.

[0021] While geographic information, such as the name of a country about Japan, population, a language, and a capital, will be displayed on the 1st display screen as shown in drawing 3 if the touch sensor 5 which is in the position in Japan of the main part 1 of a globe, for example is specifically touched, these contents of a display are outputted with a sound from a speaker 10.

[0022] Moreover, the map of whole Japan more detailed than the topographical map of Japan currently drawn on the main part 1 of a globe is displayed on the 2nd display screen 9.

[0023] In making the information on a more detailed area output, it touches the arbitrary parts on the map currently displayed on the 2nd display screen 9. Namely, while the detailed map about the area is displayed on the 2nd display screen 9 as picture information by touching the touch sensor 12 of the part which is going to acquire detailed information The sound which reads out the character which the description about that area is displayed on the 1st display screen 8 by Monju, and is further displayed on this 1st display screen is outputted from a speaker 10.

[0024] While the geographic information about the method of northeast Kitachi will be displayed on the 1st display screen as shown in drawing 4 if the part of the method of northeast Kitachi on the 2nd display screen 9 where the Japanese complete diagram is displayed like drawing 3 concrete, for example is touched These contents of a display are outputted with a sound from a speaker 10, and the detailed map of the method of northeast Kitachi is displayed on the 2nd display screen 9.

[0025] furthermore, when acquiring detailed information (for example, when displaying Aomori Prefecture of the methods of northeast Kitachi shown in drawing 4) While the geographic information

about Aomori Prefecture will be displayed on the 1st display screen as shown in drawing 5 if the part of Aomori Prefecture on the 2nd display screen 9 where the map of the method of northeast Kitachi is displayed like drawing 4 is touched These contents of a display are outputted with a sound from a speaker 10, and the detailed map of Aomori Prefecture is displayed on the 2nd display screen 9.

[0026] In the work example mentioned above, although it has composition which arranges the touch sensor 5 on the main part of a globe for every country or area, many touch sensors may be arranged at equal intervals all over the main part top of a globe.

[0027] Moreover, in the work example mentioned above, when acquiring more detailed information, it has composition which touches the touch sensor 12 of the 2nd display screen, but a touch sensor is not formed in the 2nd display screen, but the button for operation is operated, and a screen may be switched.

[0028] Furthermore, the manual operation buttons 11a and 11b are not formed, but image display of the manual operation button is carried out on the 2nd display screen, the manual operation button on this screen is touched, the display position of a map may be able to be moved or a display size may be able to be changed.

[0029] moreover -- ** it may form the information output unit 7 in the mount 4 which supports the main part 1 of a globe -- the information output unit 7 -- ** -- for example, it may be made a box-like thing and may use also [mount / 4]

[0030]

[Function and Effect of the Invention] [a globe equipped with the information output unit concerning this invention] Since text about the country and area of the position, such as picture information, such as an expansion map, and expository writing, will be displayed on the display screen of an information output unit if the touch sensor of the arbitrary parts currently arranged on the main part of a globe is touched Operation can use it easily, although detailed information is moreover investigated, it does not need to refer to other encyclopedias or maps, and the easy for example, child of a low grade [elementary school] can also make its learning effect improve.

[0031] Moreover, data can be updated easily and it is not necessary to exchange the main part of a globe the change on administration, such as the name of a country and the border, and by exchanging information media, even if there is change to detailed information.

[0032] furthermore, the contents of the information outputted from an information output unit are changed by exchanging information media according to the age and the purpose of using a user -- things can be carried out.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] The perspective view showing the work example of the globe concerning this invention.

[Drawing 2] The side view of an information output unit.

[Drawing 3] The front view showing the example of a display of an information output unit.

[Drawing 4] The front view showing other examples of a display of an information output unit.

[Drawing 5] The front view showing the example of a display of further others of an information output unit.

[Explanations of letters or numerals]

1 Main Part of Globe 2 Axis

3 Support Frame 4 Mount

5 Touch Sensor 6 Signal Wire

7 Information Output Unit 8 1st Display Screen

9 2nd Display Screen 10 Speaker

11a Direction button 11b Display size-change button

12 Touch Sensor 13 Card Slot

14 Connector

[Translation done.]